



IDEM
Office of Air Management
Rules Guidance

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**DEVELOPMENT OF AMENDMENTS TO RULES CONCERNING VAPOR PRESSURE OF
SOLVENTS USED FOR COLD CLEANING DEGREASING IN LAKE, PORTER, CLARK,
AND FLOYD COUNTIES**

#97-8(APCB)

FACT SHEET

Overview

This rulemaking action amends 326 IAC 8-3 to add a section requiring the use of low vapor pressure solvents in cold cleaning degreasing operations in Lake, Porter, Clark and Floyd counties.

Citations Affected

Adds: 326 IAC 8-3-8
Amends: 326 IAC 8-3-1

Affected Persons

Users, suppliers, and manufacturers of solvents for cold cleaner degreasers.

Potential Cost

The potential costs of complying with this rule will vary for manufacturers, suppliers, and users. Illinois and Maryland recently finalized similar rules and have projected costs as relatively low. Complying with this rule may result in additional costs associated with the manufacture (equipment) and supply of the solvents, although this will depend on the specific manufacturer or supplier. Costs for

suppliers in Lake and Porter counties should be minimized as these businesses are already operating within the Chicago area distribution network, which is subject to the Illinois rule. It is anticipated that increases in costs to users should not be significant. Some cost increases will be offset by a decrease in the loss of solvent to evaporation. Alternative compliance options, such as aqueous degreasers, have higher start up costs. However, some of these options may demonstrate long-term savings due to decreased solvent costs.

Description

Lake, Porter, Clark, and Floyd counties have air quality that does not meet the one-hour National Ambient Air Quality Standard (NAAQS) for ground level ozone. Ozone is formed by the reaction of volatile organic compounds (VOC) and nitrogen oxides (NOx) with oxygen in the presence of sunlight. High ozone levels can cause lung damage and exacerbate asthma and other respiratory illnesses, particularly in children and the

elderly. The Clean Air Act requires that states develop measures to bring nonattainment areas into attainment. This rule is one such measure.

Degreasing operations are common sources of VOC emissions. Degreasing refers to a process that uses a solvent to remove grease, oil, or dirt from the surface of a part, usually prior to surface coating or welding. Cold cleaning is a form of degreasing where the part is dipped into or sprayed with a solvent. Cold cleaners are commonly used in auto repair shops and autobody shops, and in many types of industry.

This rule would establish a vapor pressure limit for the solvents used in cold cleaning. A lower vapor pressure means that less solvent evaporates creating emissions of chemicals to the air. The rule requires that vendors provide to users in the affected counties only solvents with a vapor pressure at or below the level stipulated by the rule for use in a cold cleaning degreaser. Vendors also would be required to keep records of transactions with users and manufacturers. Users would be required to use only solvents with a vapor pressure at or below the level stipulated by the rule and to keep records of their purchases of the solvents. Some suppliers are already able to provide these new solvents.

Existing rules in 326 IAC 8 establish work practices and equipment requirements for cold cleaning degreasing operations. A few specific solvents used in cold cleaning are regulated by 326 IAC 20-6, National Emission Standard for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning. However, 326 IAC 8-3-8 would apply to any cold cleaning solvent. To decrease the initial impact the rule would be implemented in two stages, allowing time for manufacturers and suppliers to modify equipment and for users to procure the new solvents.

This rule is expected to result in a

decrease in VOC emissions of 5,000 lb./summer day from cold cleaning degreasing. Fewer VOCs would result in less ozone formation on hot summer days. This rule is part of a balanced approach to provide citizens in Lake, Porter, Clark and Floyd counties with cleaner air and bring the area into attainment with the NAAQS.

Consistency with Federal Requirements

The draft rule is consistent with requirements of Section 182 of the Clean Air Act which requires states to develop measures to bring nonattainment areas into attainment, and then ensure maintenance, of the National Ambient Air Quality Standards for ozone.

CONSIDERATION OF FACTORS OUTLINED IN INDIANA CODE 13-14-8-4

Indiana Code 13-14-8-4 requires that in adopting rules and establishing standards, the board shall take into account:

- 1) all existing physical conditions and the character of the area affected;
- 2) past, present, and probable future uses of the area, including the character of the uses of surrounding areas;
- 3) zoning classifications;
- 4) the nature of the existing air quality or existing water quality as the case may be;
- 5) technical feasibility, including the quality conditions that could be reasonably be achieved through coordinated control of all factors affecting the quality; and
- 6) economic reasonableness of measuring or reducing any particular type of pollution.

RECOMMENDATION

It is recommended that the board

final adopt new rule and amended rule as presented.

IDEM Contact

Additional information regarding this rulemaking action can be obtained from Janet Perkowski, Rules Development Section, Office of Air Management, (317) 233-8628 or (800) 451-6027, ext. 3-8628 (in Indiana).